



Canadian Food
Inspection Agency

Agence canadienne
d'inspection des aliments

Canadian Food Inspection Agency



Our vision:

To excel as a science-based regulator, trusted and respected by Canadians and the international community.

Our mission:

Dedicated to safeguarding food, animals and plants, which enhances the health and well-being of Canada's people, environment and economy.

Salmonella Vaccination and Serological Testing in Poultry

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Canada

Health of Animals Act and Regulations (1)

- Enabling legislation - Section 2 of the Health of Animals Act – Reportable Diseases Regulations
 - To prevent the transmission of animal diseases in Canada, the CFIA must be notified of the introduction or presence of certain animal diseases in the domestic population.

Health of Animals Act and Regulations (2)

- Reportable diseases – schedule 2
 - Significant importance to human or animal health or to the Canadian economy
 - Control and eradication measures will be applied immediately
 - Notifiable Avian Influenza, Newcastle disease, Pullorum (*Salmonella Pullorum*) and Fowl Typhoid (*Salmonella Gallinarum*)

Health of Animals Regulations – Section 79

Pullorum Disease and Fowl Typhoid

- Outlines monitoring, testing, certification, disease response
 - Farms and hatcheries are covered
- All provinces are established as eradication areas and therefore eradication programs are instituted when disease is found
 - The CFIA Inspector may request flock owners/managers to have their poultry, poultry products or by-products tested for communicable diseases

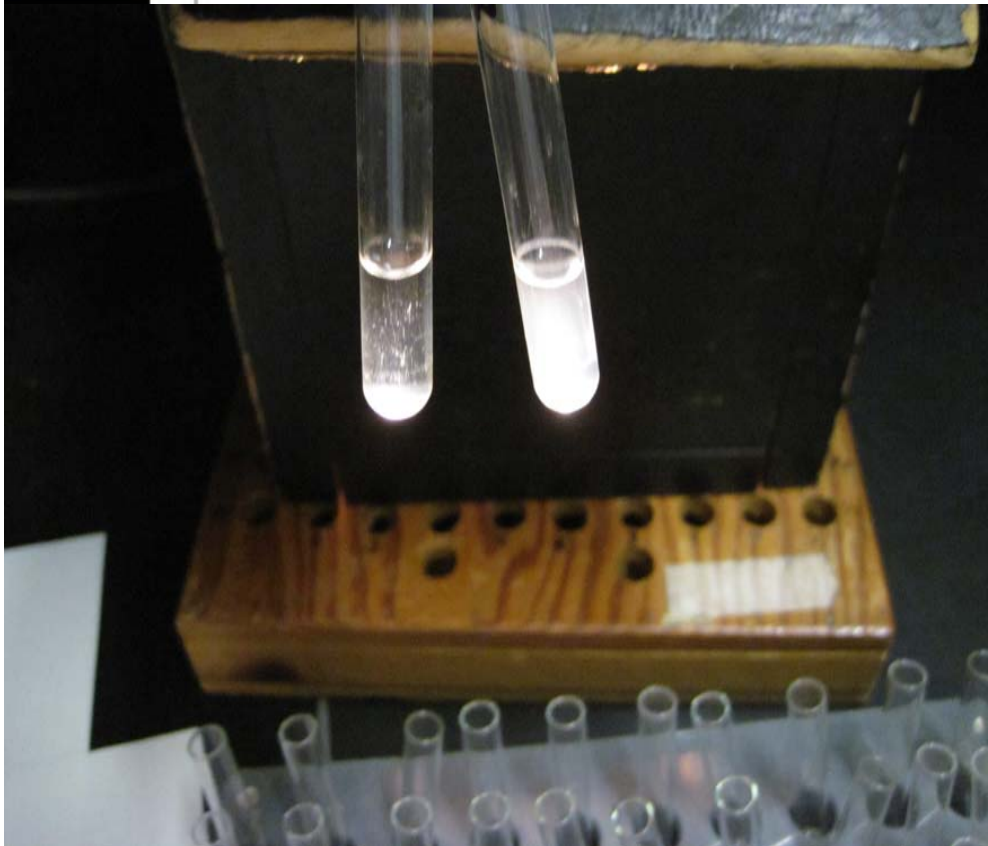
Tests for *S. Gallinarum* and *S. Pullorum*

- The goal is to detect infected supply flocks through a screening procedure before they begin egg production
- Serology
 - Standard tube agglutination test – official blood test
 - Rapid whole-blood test using stained antigen (except turkeys and ducks)
 - Rapid serum agglutination test
- Bacteriology – isolation and identification

Current Issues (1)

- Vaccination against *Salmonella paratyphoidis* has been increasing in the last several years
 - The vaccine may produce a positive serological response when testing for SP and SG using standard tests
 - It does not produce positive *Salmonella* on isolation and identification
- Some veterinarians have used the serology tests for SP and SG to monitor vaccination response for *S. Enteritidis* (group D)
 - There is no current available testing kit to monitor for this type of vaccination

Tube agglutination and rapid plate tests



Tube agglutination test

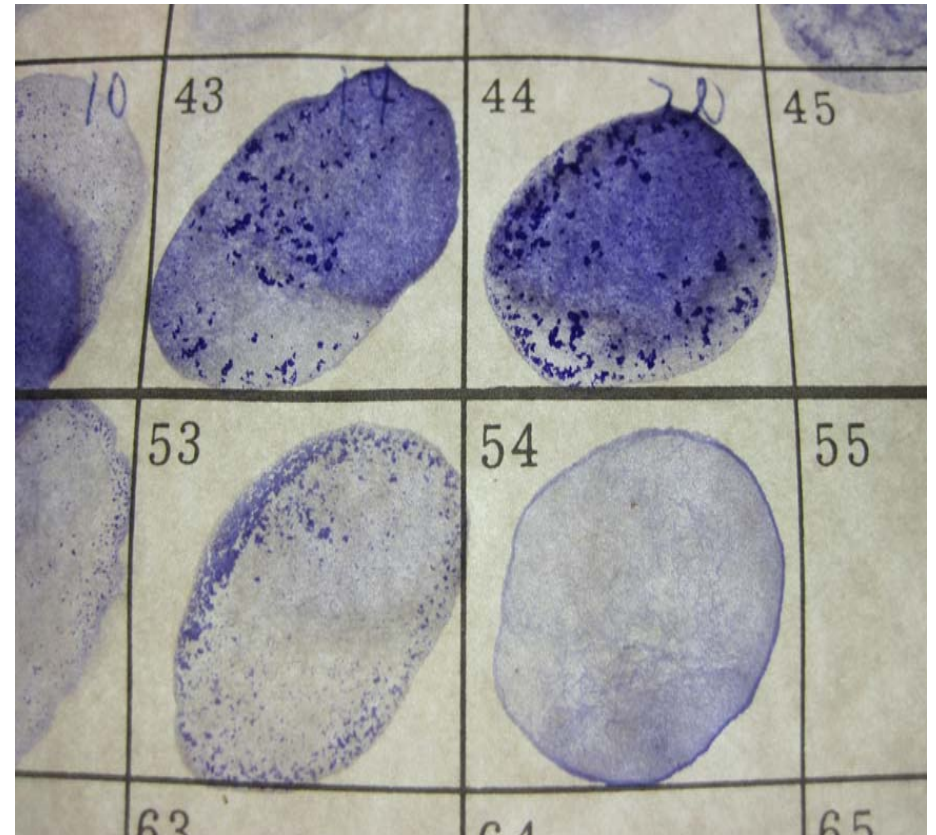


Plate agglutination test

Source: AHL K. Harron

Current Issues (2)

- A positive serology test results for SP and SG is reported by the labs to the CFIA as part of the Reportable Diseases Regulations
- Live birds must be submitted to the CFIA authorized labs (non-CFIA lab i.e. AHL) for salmonella isolation, to confirm disease status of the flock
 - Birds are tagged during sampling to ease identification
- If positive, further tests are done by the CFIA

Recommendations (1)

- If you are vaccinating for Salmonella (i.e. SE)-
 - Get all the facts about the vaccine so you would know what to expect
 - Inform the lab that the birds were vaccinated prior to any serological tests for SP and SG
 - Avoid requesting for Salmonella serological test as a way to evaluate the birds' response to the vaccine
- Make sure that the lab knows the full vaccination history of the flock so they can interpret the test results better and inform the CFIA, if needed

Recommendations (2)

- It is the responsibility of the private veterinarian to follow through all cases and to work with the CFIA in the investigation and necessary response to reportable diseases



Who's holding the flag?

Source: iClipart

Hatchery Regulations and Program

- The Hatchery Regulations are being re-written to update the provisions. Section 79 of the Health of Animals Regulations will be incorporated.
- A Hazard Specific Plan is being developed for Pullorum and Fowl Typhoid to replace the response policy written in 1998.
- SE will be included as a regulated/named organism

Questions?



THANK YOU!

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